

REMARKS

The last Office Action has been carefully considered.

It is noted that claims 1 and 6 are rejected under 35 U.S.C. 101.

Claims 2-5, 7-15 and 17-19 are further rejected as depending from a rejected independent claim.

At the same time the Examiner indicated that claim 16 and 20-22 were allowed.

The Examiner's indication of the allowance of claims 16 and 20-22 has been gratefully acknowledged. In connection with this indication, these claims have been retained as they were.

After carefully considering the Examiner's grounds for the rejection of claims 1 and 6 over the art as well as the claims which depend on them, applicants amended the rejected claims to present the inventive method as a sequence of corresponding steps and to more clearly define the present invention.

In connection with the Examiner's rejection of claims 1 and 6 under 35 U.S.C. 101, it is believed to be advisable to analyze these claims in detail. Claim 1, the broadest claim on file, defines a method for locating objects enclosed in a medium, which comprises the following steps:

generating a detection signal by at least one capacitive sensor device,

penetrating by the detection signal the medium that is to be analyzed in such a way that information is obtained about the objects that are enclosed in the medium,

obtaining the information about the objects that are enclosed in the medium by evaluating the detection signal,

particularly by measuring impedance so that a value and a phase of a complex resistance are measured,

performing the evaluating of the detection signal by using an algorithm that separates the measured signal into signal parts originating from the enclosing medium and signal parts originating from the object enclosed in the medium,

determining a location of the object based on the signal parts originating from the enclosing medium and on the signal parts originating from the object,

and making information about the determined location of the object enclosed in the medium available to a user.

Claim 6 substantially corresponds to claim 1, but also defines some additional features of the inventive method.

The present invention deals with a method of detecting or locating objects enclosed in a medium. The results of this method is to locate an object which is not visible with a naked eye because it is enclosed in a medium. By means of the inventive method, the position of the object enclosed in the medium is located, or in other words defined, and also it can be exhibited by means of the corresponding detection device.

In the method in accordance with the present invention a detection signal is generated by at least one capacitive signal and penetrates a medium to be analyzed, so that information is obtained about an object enclosed in the medium by evaluating the detection signal, particularly by measuring impedance so that a value and a phase of a complex resistance are measured, for evaluation of the detection signal an algorithm is used that separates the measured signal into signal parts originating from the enclosed medium and signal parts originating from the object enclosed in the medium, and a location of the object is determined based on the signal parts originating from the enclosing medium and on the signal parts originating from the object. This is disclosed in detail in the specification.

As for the useful, concrete and tangible results, it is believed to be clear from analysis of claims 1 and 6 that the method in accordance with the present invention provides a useful, concrete and tangible result in determining a location of the object that is enclosed in the medium based on the signal parts originating from the enclosed medium and on the signal parts originating from the object. Claims 1 and 6 additionally define that the information about the determined location of the object enclosed in the medium is made available to the user as explained for example in lines 19-28 on page 7 of the specification. This step represents an additional useful, concrete and tangible result.

Dependent claims 23 and 24 further clarify how the information about the determined location of the object enclosed in the medium is made available to a user, namely by displaying it on a display. Claims 23 and 24 further clearly specify the useful, concrete and tangible results of the inventive method.

In view of the above presented remarks and amendments, it is believed that claims 1 and 6 should also be considered as allowable, together with the dependent claims which depend directly or indirectly on them.

Reconsideration and allowance of the present application is most respectfully requested.

Should the Examiner require or consider it advisable that the specification, claims and/or drawings be further amended or corrected in formal respects in order to place this case in condition for final allowance, then it is respectfully requested that such amendments or corrections be carried out by Examiner's Amendment, and the case be passed to issue. Alternatively, should the Examiner feel that a personal discussion might be helpful in advancing this case to allowance, he is invited to telephone the undersigned (at 631-549-4700).

Respectfully submitted,

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